

REMARKS

The Office Action mailed June 22, 2004 has been carefully reviewed and the following amendment has been made in consequence thereof.

Claims 1-37 are now pending in this application. Claims 1-37 stand rejected.

The rejection of Claims 1-37 under 35 U.S.C. § 103(a) as being unpatentable over Gabriner et al. (U.S. Patent No. 5,848,403) is respectfully traversed.

Gabriner et al. describe a system for encoding and testing hard constraint information wherein each resource and task in a schedule includes an associated capability and constraint indicating component. A comparison of the capability and constraint components provides an indication of the associated resource is capable of perform the proposed task. The system also includes a method of creating genomes using cost factors and weight settings to produce initial genomes which encode at least partly optimized schedules. The weight settings can be manipulated to emphasize different cost factors during genomes creation, and allows changes to be added into the scheduling system, such that new or changed tasks and new or changed resources are encoded into the genome population. All the resources from the group of available resources produce bids for performing a task. Each resource produces its bid according to the task description, cost factors, and weight settings. A potential resource is checked to determine if it meets the hard constraints required to perform the selected task. If the potential resource does not meet the hard constraints, it does not produce a resource bid. The resource with the best bid is selected and is paired with the selected task, and the genome is encoded with an indication that the selected resource is scheduled to perform the selected task. The resource/task pair are encoded in the next available location in the genome.

Notably, Gabriner et al. do not describe nor suggest utilizing a model to simulate task flow to determine if a schedule can be met based on the simulated task flow, but rather, in contrast to the present invention, describes pairing tasks with a resource that produced a best “bid” for performing the task wherein the bid is based on the task description, cost factors, and weight settings. Applicants respectfully submit that generating a genome or list of paired resources and tasks cannot fairly be equated with utilizing a model to simulate a task flow.

Applicant respectfully traverses the Section 103 rejections of the presently pending claims on the grounds that the Office action combines a single prior art reference with mere assertions that elements of the claimed invention that are missing from this prior art reference are obvious, without a citation to some reference work recognized as a standard in the pertinent art to support these assertions. Under the MPEP 2144.03(Bill do we have a citation in the MPEP for this point), obviousness cannot be established by merely suggesting that it would have been an obvious to one of ordinary skill in the art to modify Gabriner et al. Rather, each allegation of what would have been an obvious matter of design choice must be supported by citation to some reference work recognized as a standard in the pertinent art, and the Applicant given an opportunity to challenge the correctness of the assertion or the repute of the cited reference. Applicant has not been provided with the citation to any reference supporting the assertions of obviousness made in the rejection. Accordingly, for this reason alone, Applicant requests that the Section 103 rejection of the present Claims be withdrawn.

Clearly, Gabriner et al. do not describe nor suggest the claimed combination, and thus the presently pending claims are patentably distinguishable from the cited combination. Claim 1 recites a method for managing railcar movement in a railyard based on the flow of railyard tasks, using a system including a computer that includes a processor, a memory device, and a database wherein the method includes “inputting initial parameters to the computer...simulating railyard task flow utilizing a yard performance model and the initial parameters...determining if a train schedule can be met based on the simulated yard task flow.” Specifically, Gabriner et al. do not describe nor suggest simulating railyard task flow utilizing a yard performance model and the initial parameters.

Rather in contrast to the present invention, Gabriner et al. describe a scheduling system that has information about the scheduling problem in the form of a description of the resources available for performing tasks and of the tasks to be performed, and can receive information about the problem domain, which is separate from the resource descriptions and task descriptions, and includes hints and general rules to help the scheduling system produce optimal schedules, but Gabriner et al. do not describe nor suggest simulating railyard task flow utilizing a yard performance model.

Moreover, Gabriner et al. do not describe nor suggest determining if a train schedule can be met based on the simulated yard task flow. Rather, in contrast to the present

invention, Gabriner et al. describe a scheduling system that produces resultant schedules that are displayed on a computer screen, printed out, or stored in a form which can be read and manipulated by other system applications, but Gabriner et al. do not describe nor suggest determining if a train schedule can be met. For the reasons set forth above, Claim 1 is submitted to be patentable over Gabriner et al.

Claims 2-14 depend from independent Claim 1. When the recitations of Claims 2-14 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-14 are patentable along with Claim 1.

Claim 14 recites a system for managing railcar movement in a railyard based on the flow of railyard tasks wherein the system includes a computer having a processor, a memory device, and a database and wherein the railyard includes at least one of a surge yard, a receiving yard, a receiving inspected (RI) yard, a classification yard, a departure yard and a departure inspected (DI) yard. The system is configured to “input initial parameters to said computer...simulate railyard task flow utilizing a yard performance model and the initial parameters...determine if a train schedule can be met based on the simulated yard task flow.” Specifically, Gabriner et al. do not describe nor suggest a system configured to simulate railyard task flow utilizing a yard performance model and the initial parameters.

Rather in contrast to the present invention, Gabriner et al. describe a scheduling system that has information about the scheduling problem in the form of a description of the resources available for performing tasks and of the tasks to be performed, and can receive information about the problem domain, which is separate from the resource descriptions and task descriptions, and includes hints and general rules to help the scheduling system produce optimal schedules, but Gabriner et al. do not describe nor suggest a system configured to simulate railyard task flow utilizing a yard performance model.

Moreover, Gabriner et al. do not describe nor suggest a system configured to determine if a train schedule can be met based on the simulated yard task flow. Rather, in contrast to the present invention, Gabriner et al. describe a scheduling system that produces resultant schedules that are displayed on a computer screen, printed out, or stored in a form which can be read and manipulated by other system applications, but Gabriner et al. do not describe nor suggest determining if a train schedule can be met. For the reasons set forth above, Claim 14 is submitted to be patentable over Gabriner et al.

Claims 15-26 depend from independent Claim 14. When the recitations of Claims 15-26 are considered in combination with the recitations of Claim 14, Applicant submits that dependent Claims 15-26 are patentable along with Claim 14.

Claim 27 recites a railyard performance model for use in management of a railyard, the railyard that includes six subyards including a surge yard, a receiving yard, a receiving inspected (RI) yard, a classification yard, a departure yard and a departure inspected (DI) yard wherein the model is configured to “simulate railcar movement in a railyard based on the flow of railyard tasks...determine if a train schedule can be met based on the simulation.” Specifically, Gabriner et al. do not describe nor suggest a railyard performance model that is configured to simulate railcar movement in a railyard based on the flow of railyard tasks. Rather in contrast to the present invention, Gabriner et al. describe a scheduling system that has information about the scheduling problem in the form of a description of the resources available for performing tasks, has information in the form of a description of the tasks to be performed, and can receive information about the problem domain, which is separate from the resource descriptions and task descriptions, and includes hints and general rules to help the scheduling system produce optimal schedules, but Gabriner et al. do not describe nor suggest a railyard performance model that is configured to simulate railcar movement in a railyard based on the flow of railyard tasks. Moreover, Gabriner et al. do not describe nor suggest a railyard performance model that is configured to determine if a train schedule can be met based on the simulation.


Rather, in contrast to the present invention, Gabriner et al. describe a scheduling system that produces resultant schedules that are displayed on a computer screen, printed out, or stored in a form which can be read and manipulated by other system applications, but Gabriner et al. do not describe nor suggest a railyard performance model that is configured to determine if a train schedule can be met based on the simulation. For the reasons set forth above, Claim 27 is submitted to be patentable over Gabriner et al.

Claims 28-37 depend from independent Claim 27. When the recitations of Claims 28-37 are considered in combination with the recitations of Claim 27, Applicant submits that dependent Claims 28-37 are patentable along with Claim 27.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-37 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



William J. Zychlewicz
Registration No. 51,366
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070